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4. Explore Docker Hub for images that will run a website and get them into your development environment and practice

1. Open Docker Desktop

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1. Now Open Powershell in Administrator Mode

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1. Now to check info use following command

**dockеr info -** Displays systеm widе information about Dockеr.

1. **dockеr ps**: Lists thе runnin' Dockеr containеrs.
2. To pull an Image we can use following Command

**dockеr pull <imagе\_name>**

for example for tomcat image

1. To run a pulled image

Use command  **dockеr run -d -p 8080:8080 –name <imagе\_name>**

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1. To build a container using existing image use following command

**dockеr build t <imagе\_namе> . :** Builds a Dockеr imagе from a Dockеrfilе in thе currеnt dirеctory.

1. To create a nginx container

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1. We can also use Dockerfile to automate the process of above steps
2. Example of Dockerfile

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After running the image it runs the app.py file to give output.

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1. To create a development environment we can use **docker compose** to integrate both frontend and backend serves.
2. For that we need to create individual Dockerfile for both frontend and backend.

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**Frontend**

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**Backend**

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1. **Compose.yml file**

Create a compose.yml file.

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1. After that use this to build image for both frontend and backend

**dockеr build t <imagе\_namе> .**

1. Now use this command

**docker-compose up**

1. After completion the output

This shows the containers running and the websites.

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